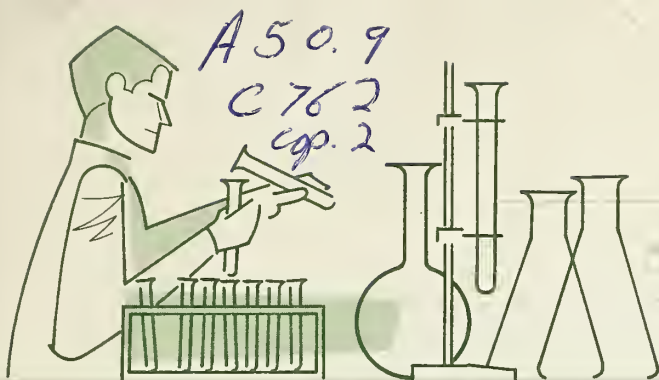


Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.



CHEMICAL EVALUATION AND CONTROL FACT SHEET

MEAT INSPECTION DIVISION - CONSUMER AND MARKETING SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

MID-CEC-2
April 29, 1965

Subject: Fumigants, Insecticides, Rodenticides

Elimination of vermin in and around meat packing plants is vital to the maintenance of good sanitation. In combating these pests, two things are of utmost importance:

- (a) prevent their breeding
- (b) prevent their entrance into establishments

This may be accomplished only through a program designed for the elimination of all areas outside the packing plant where these pests may breed or may be sheltered. The construction of the plant itself must be such as will insofar as possible prevent these pests from gaining entrance. When vermin do gain entrance to official establishments in spite of vigorous attempts to keep them out, certain eradication methods are permitted. The following information gives a brief statement of methods used and identifies the specific materials permitted.

Fumigants

Fumigation with hydrocyanic acid or methyl bromide gas is sometimes desirable for the eradication of vermin. Since each gas used is extremely poisonous to man as well as to vermin, permission for their use must first be obtained from the inspector in charge and a competent, experienced person must be placed in direct charge of the operations. Exposed meats or packaged meats need not be removed from the room being fumigated. After fumigation the room should be well ventilated before inspectors or workmen enter the room. Ventilation must also be sufficient to assure complete removal of the gas from the surface of food products. The equipment used should be so constructed and controlled as to positively prevent any of the liquid from contaminating product. Only the gas should be permitted to escape from the fumigating equipment.

Insecticides

The so-called knock down sprays containing pyrethrum extracts and other materials not having residual killing action may be used in places where meats are handled providing exposed meats are removed or covered before spraying is begun and the premises are cleaned by thorough washing after spraying is completed. Insecticides permitted in this area consist of powders or deodorized petroleum distillate solutions of pyrethrum extract, rotenone, organic thiocyanates (lethane, thanite), pyrethrums, allethrin, (allyl homolog of cinerin I) with or without 1% or less singly or in combination of the following insecticides: piperonyl butoxide, N-propyl isome (di-N-propyl maleate isosafrole condensate), N-octyl dicycloheptane dicarboximide (MGK 264, etc.) or sulfoxide. Up to 5% of these chemicals collectively or individually may be used in a preparation dispensed as aerosol.

In contrast to the non-residual materials, there are residual insecticides which kill insects over a long period of time. These insects may fall into product since there is no practical way to protect product during operations. Therefore, use of residual insecticides is restricted to areas where exposed meats are not handled. Such preparations consist of deodorized petroleum distillate solutions of DDT, chlordane, methoxychlor, lindane (gamma isomer of benzene hexachloride), malathion, Diazinon, Ronnel, DDVP, Entex, Kepone, Dipterex, Dimethoate, Piperonyl butoxide or other synergists enumerated in the preceding paragraph.

Colored sugar baits containing up to 2% either of 0,0-diethyl-0 (isopropyl-6-methyl-4-pyrimidyl) thiophosphate (Diazinon) or 0,0-dimethyl trichlorohydroxyethyl phosphonate (Dipterex, Bayer L 13/59) or malathion may be used for fly control around livestock pens and inedible departments.

The following substances when mixed with inert materials may be used as insect powders for the elimination of roaches under circumstances which absolutely preclude contact with product: Sodium fluoride (must be definitely colored green or blue), borax, boric acid, derris and cube roots, powdered pyrethum, powders containing organic thiocyanates (lethane, thanite) and DDT-(insecticidal powder containing DDT must not be used in an area where edible product is handled.)

Rodenticides

In general, rodent baits are not allowed to be placed in edible products departments until after operations have been ended for the day. Strict account must be kept of the location and number of baits set out. All uneaten baits must be gathered up and destroyed before operations are begun the next day. Baits are not allowed to be placed in dry, salt cellars. They may be placed in other departments containing enclosed meats, but care must be taken that they are so placed as to prevent

contamination of the meat. Baits composed of Warfarin, red squill or Antu may be left in room containing exposed meat providing the layout and conditions are approved by the inspector in charge. All baits must be kept in a separate place designated by the inspector in charge. The rodenticides listed below may be used under circumstances that absolutely assure no contact with product: Barium carbonate, red squill, Antu (alphanaphthyl-thiourea) Warfarin, 2-pivalyl-1, 3 indandione (pival, etc.) 2-isovaloric-1,3 indandione (PMP), Diphacin, Prolin and Norbormide.

Proposals for use of insecticides, rodenticides or fumigants other than those identified in this "Fact Sheet" should be forwarded to the Meat Inspection Division, C&MS, United States Department of Agriculture, Washington, D. C. 20250. Proposals to use accepted materials in a manner which deviates from our normal requirements should also be forwarded to this office.

